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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,794	03/13/2007	Herbert Brunner	12406-216US1 P2004,0241 U	2792

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EXAMINER	
SANDVIK, BENJAMIN P	
ART UNIT	PAPER NUMBER
2826	

NOTIFICATION DATE	DELIVERY MODE
10/14/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	10/593,794	BRUNNER ET AL.	
	Examiner	Art Unit	
	BENJAMIN SANDVIK	2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1,2,4-8,10-13,15-18,20 and 23-28* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1,2,4-8,10-13,15-18,20 and 23-28* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/9/2011*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 8/1/2011, with respect to the rejection(s) of claim(s) 1 and 25 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further search and consideration, a new ground(s) of rejection is made in view of the Stark and Palmteer references.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4-8, 10-13, 15-18, 20, 23, 24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song et al (U.S. PG Pub #2002/0175621), in view of Mazzochette et al (U.S. PG Pub #2004/0222433), further in view of Stark (U.S. PG Pub #2004/0104460).

With respect to **claims 1, 7, 10, and 28**, Song teaches having a base part comprising a connector body (Fig. 3B, 31), on which a connecting conductor material (Fig. 3B, 34 and Paragraph 51) is disposed, and having a top part comprising a top body (Fig. 3B, 37), on which a reflector material is disposed, wherein said top body comprises a ceramic (Paragraph 37), wherein said connector body and said top body are preformed separately from each other

(Paragraph 50) and said top body is disposed on said connector body, but does not teach that the top body is a reflector body, wherein the reflector body is coated with the reflector material.

Mazzochette teaches an LED device having a connector body (Fig. 3, 11), and a top body (Fig. 3, 17) that comprises a ceramic and is coated with a metal reflector material (Paragraph 32), and provided with a recess as part of a chip cavity and the reflector material is disposed on the a wall of the recess. It would have been obvious to one of ordinary skill in the art at the time the invention was made to coat the top ceramic body of Song with a metal reflector material as taught by Mazzochette in order to improve the light output and focus by reflecting light off the walls of the top body (Paragraph 32).

Furthermore, Song does not teach an adhesion promoting part provided with a recess that is part of the cavity of said housing body, the adhesion promoting part disposed on said base part after said reflector part. Mazzochette teaches that the reflector body 17 can be provided with an adhesion promoting part (Paragraph 28) in order to affix a cover onto the package, but does not teach that the adhesion promoting part has a recess that is part of the cavity because the part is not depicted in the figures.

Stark teaches package for a light emitting device (Paragraph 88), including an adhesion promoting part (Fig. 8, 318/610) for affixing a cover to the package, wherein the part includes a recess that is part of the cavity (Fig. 8, 308) of the package. It would have been obvious to one of ordinary skill in the art at

the time the invention was made to provide an adhesion promoting part as part of the cavity of Song and Mazzochette as taught by Stark in order to provide a hermetically sealed package for protecting the LED from environmental damage (Paragraph 88).

Furthermore, regarding the limitation that "the adhesion promoting part disposed on said base part after said reflector part", note that a "product by process" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); In re Fitzgerald, 205 USPQ 594,596 (CCPA); In re Marosi et al., 218 USPQ 289 (CAFC); and most recently, In re Thorpe et al., 227 USPQ 964 (CAFC, 1985) all of which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that Applicant has burden of proof in such cases as the above case law makes clear. As to the grounds of rejection under section 103, see MPEP § 2113. In this case, the limitation provides that the two parts are separate and not the same piece of material.

With respect to **claim 2**, Song teaches that the base part and said reflector part are preformed separately from each other (Paragraph 50).

With respect to **claim 4**, Song teaches that the housing body contains aluminum nitride or aluminum oxide (Paragraph 38).

With respect to **claims 5 and 8**, Song teaches that the connecting conductor material (Paragraph 51) is different from said reflector material (Paragraph 32 of Mazzochette).

With respect to **claim 6**, Song teaches that the connecting conductor material contains a metal (Paragraph 48).

With respect to **claim 11**, Song does not teach a reflector material that is electrically insulated from said connecting conductor material. Mazzochette teaches a reflecting material (Fig. 3, 30/31 and Paragraph 32), and a connecting conductor material (Fig. 1A, 13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to electrically insulate the reflector material of Song and Mazzochette in order to avoid electrically shorting the connecting conductors 13.

With respect to **claim 12**, Song teaches that an insulation part (Fig. 3B, 32) is disposed between said base part (Fig. 3B, 31) and said reflector part (Fig. 3B, 37).

With respect to **claim 13**, Song teaches that said insulation part is preformed separately from said base part and said reflector part (Paragraph 49).

With respect to **claim 15**, Song teaches an envelope (Fig. 3B, 36) disposed in the cavity and at least partially envelops the chip.

With respect to **claim 16**, Song teaches that said envelope is arranged at said adhesion promoting part (Fig. 3B, the envelope fills the entire cavity) and said envelope adheres better to said adhesion promoting part than it does to said reflector material.

With respect to **claims 17 and 18**, Song teaches that said base part includes a heat sink (Fig. 4B, 18b) and wherein the heat sink is electrically insulated form the chip.

With respect to **claim 20**, Song teaches that the insulation part comprises a ceramic (Paragraph 49).

With respect to **claim 23**, Song teaches that the insulation part is adhesively attached to the base part and reflector part (in other words, the ceramic layers are adhered together).

With respect to **claim 24**, note that a "product by process" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); In re Fitzgerald, 205 USPQ 594,596 (CCPA); In re Marosi et al., 218 USPQ 289 (CAFC); and most recently, In re Thorpe et al., 227 USPQ 964 (CAFC, 1985) all of which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process"

claims or not. Note that Applicant has burden of proof in such cases as the above case law makes clear. As to the grounds of rejection under section 103, see MPEP § 2113.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song, in view of Mazzochette, further in view of Palmteer et al (U.S. PG Pub #2005/0093116).

With respect to **claim 25**, Song teaches having a base part comprising a connector body (Fig. 3B, 31), on which a connecting conductor material (Fig. 3B, 34) is disposed, and having a top part comprising a top body (Fig. 3B, 37), on which a reflector material is disposed, wherein said top body comprises a ceramic (Paragraph 37), but does not teach that the top body is a reflector body, wherein the reflector body is coated with the reflector material.

Mazzochette teaches an LED device having a connector body (Fig. 3, 11), and a top body (Fig. 3, 17) that comprises a ceramic and is coated with a metal reflector material (Paragraph 32), and provided with a recess as part of a chip cavity and the reflector material is disposed on the a wall of the recess. It would have been obvious to one of ordinary skill in the art at the time the invention was made to coat the top ceramic body of Song with a metal reflector material as taught by Mazzochette in order to improve the light output and focus by reflecting light off the walls of the top body (Paragraph 32).

Song and Mazzochette do not teach an insulation part disposed between said base part and said reflector part and that the reflector material is electrically insulated from said connection conductor material by the insulation part. Palmteer teaches a ceramic LED package comprising an insulation part (Fig. 3B, 330 and Paragraph 22) disposed between a base part and a top part, wherein the base part has a connecting conductor material and the insulation part insulates the conductor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an insulation part between the base part and reflector part of Song and Mazzochette as taught by Palmteer in order to prevent shorting of the conductors and to adhere the parts together (Paragraph 24).

With respect to **claim 26**, Song teaches that said housing body has a cavity (Fig. 3B, cavity for sealing material 36) in which said semiconductor chip is disposed and wherein said reflector body is provided with a recess, said recess is part of the cavity of the housing body and said reflector material is disposed on a wall of said recess.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN SANDVIK whose telephone number is (571)272-8446. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davienne Monbleau can be reached on 571-272-1945. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ben P Sandvik/
Primary Examiner, Art Unit 2826